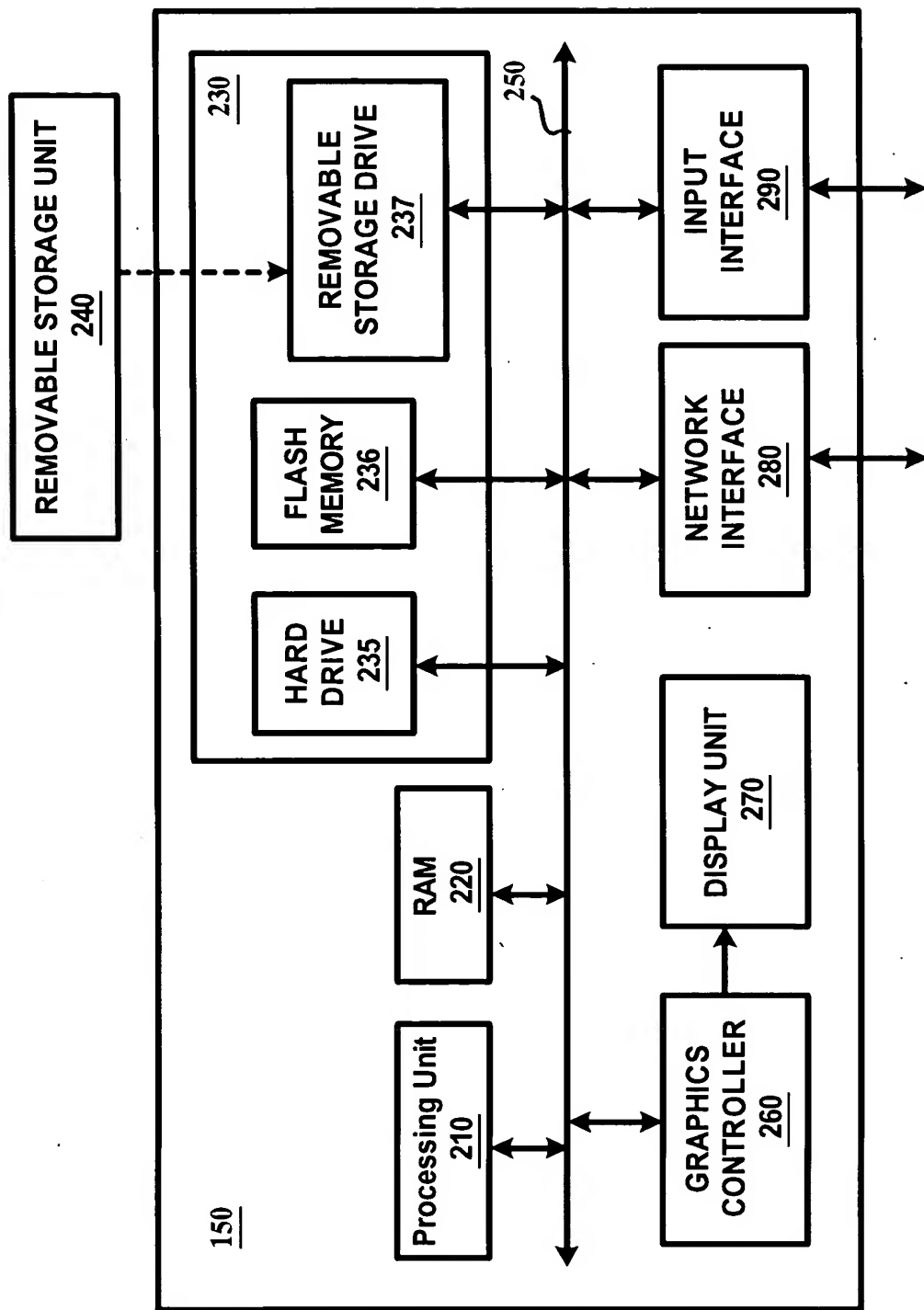
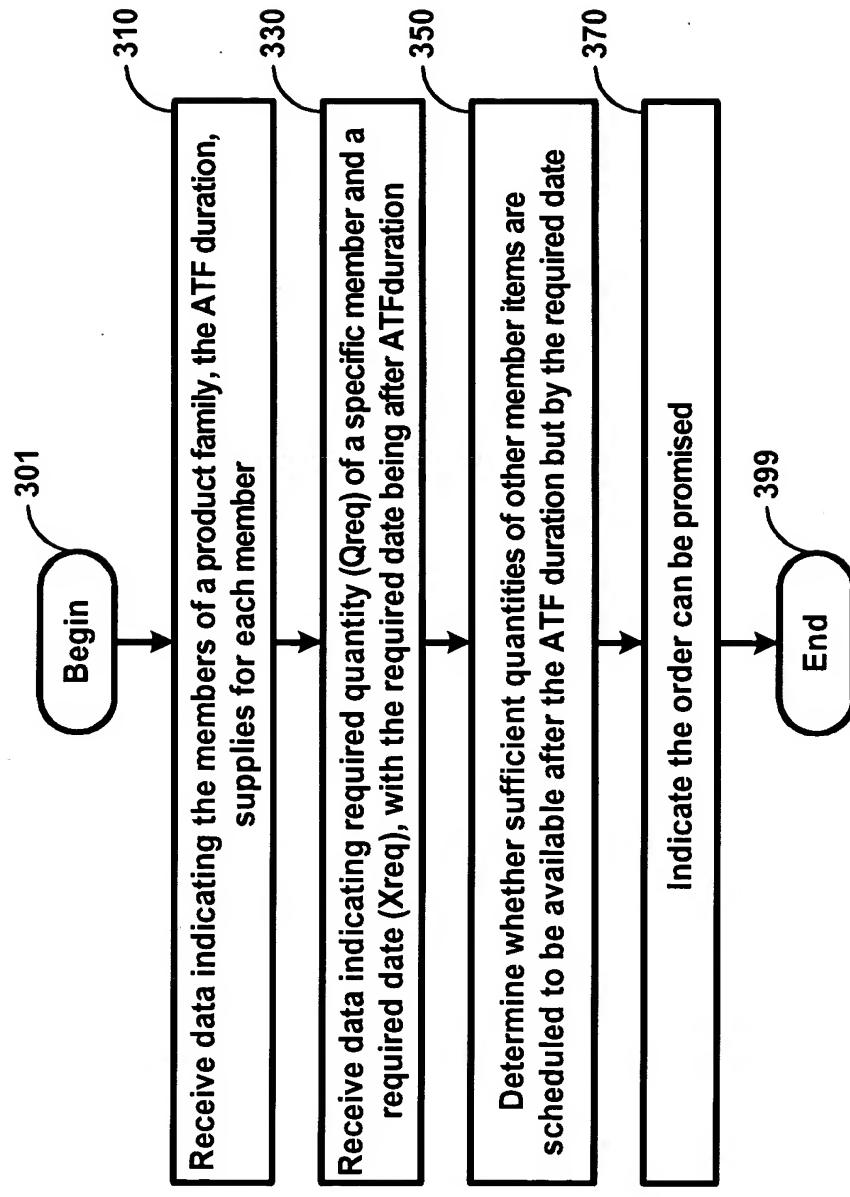


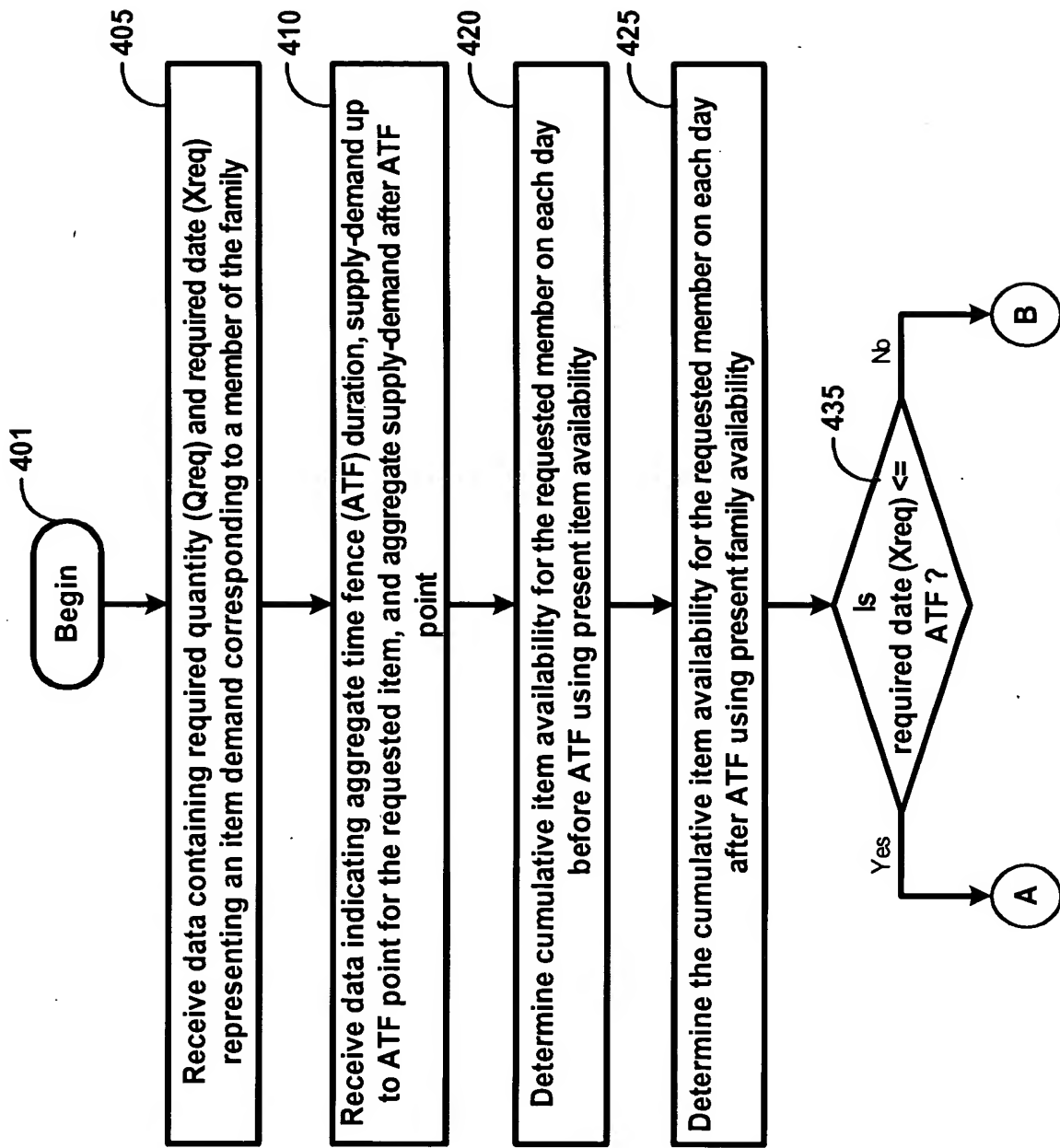
**FIG. 1**



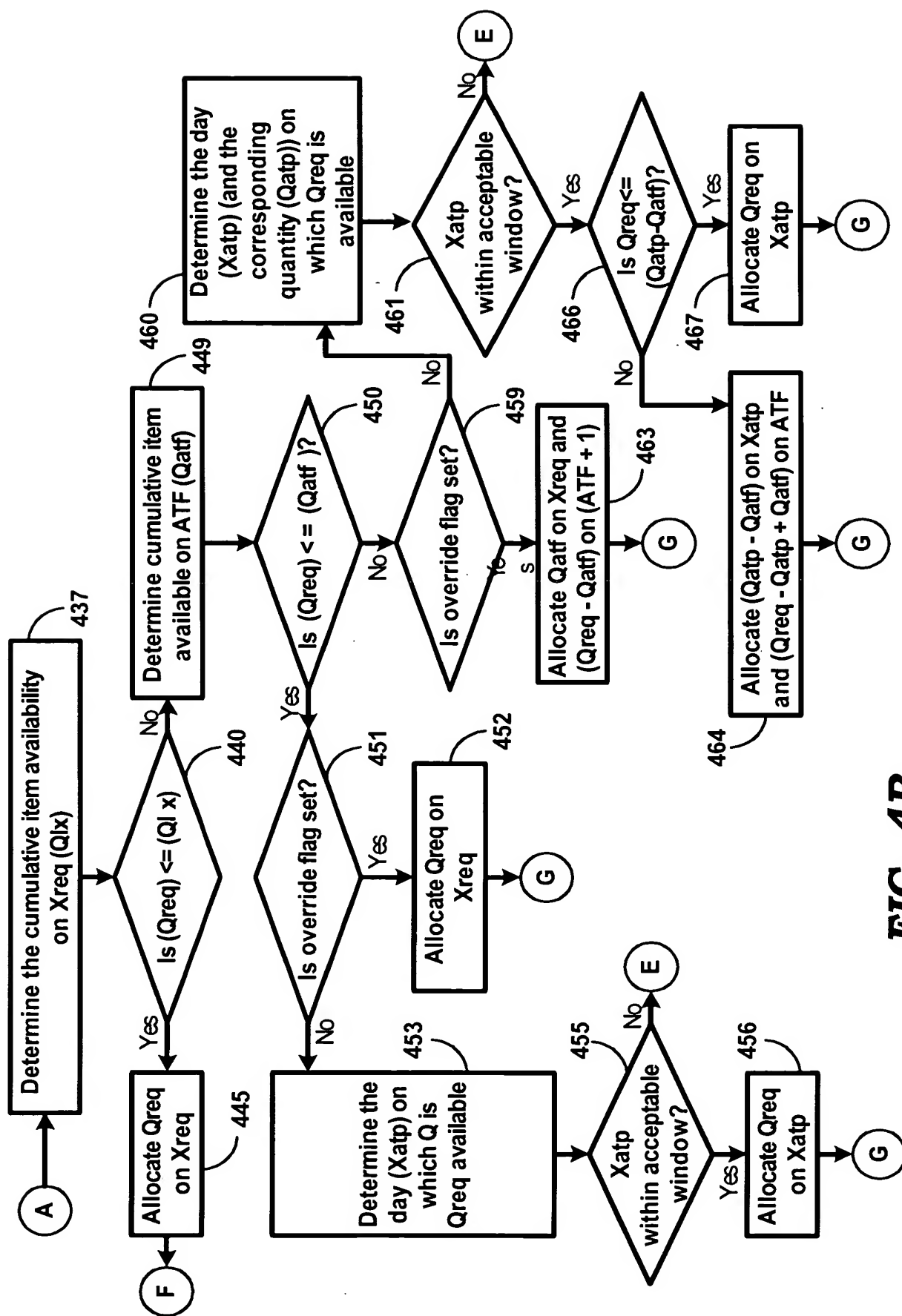
**FIG. 2**



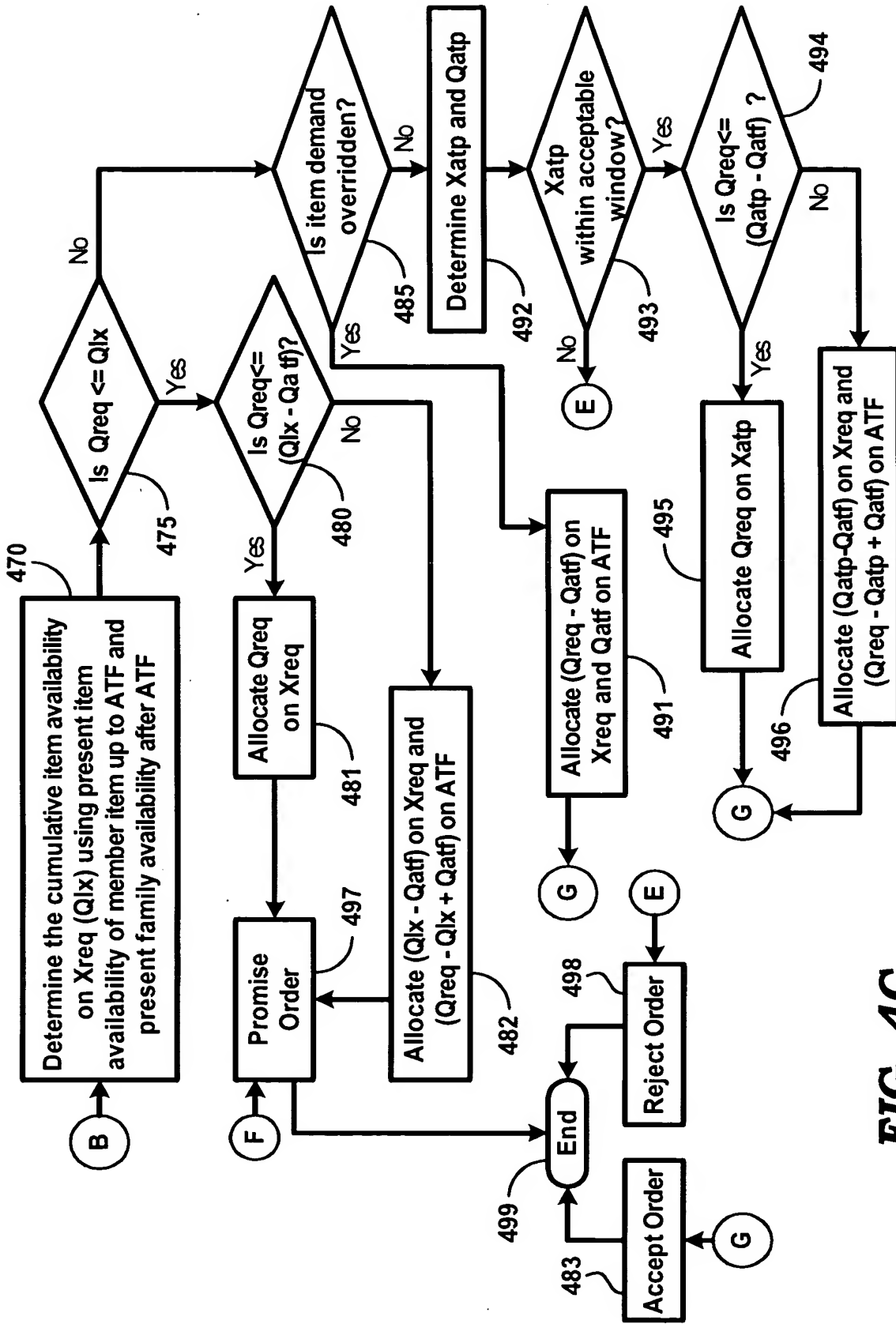
**FIG. 3**



**FIG. 4A**



**FIG. 4B**



**FIG. 4C**

500

Items	Day1	Day2	Day3	Day4	Day5	Day6	Day7	Day8
Family Supply	20	20	20	20	20	20	20	20
Family Bucketed allocation						0	0	0
Net Family Available						20	20	20
Backward Consumption						0	0	0
Net + B/W						20	20	20
Forward Consumption						0	0	0
Present family availability						20	20	20
Item Supply -A	10	10	10	10	10			
Item-A demand	0	0	0	0	0			
Item-A Bucketed Allocation	0	0	0	0	0			
Net Item-A Available	10	10	10	10	10			
Backward Consumption	0	0	0	0	0			
Net + B/W	10	10	10	10	10			
Forward Consumption	0	0	0	0	0			
Present Item-A availability	10	10	10	10	10			
Cumulative Item-A availability	10	20	30	40	50	70	90	110
Item Supply -B	10	10	10	10	10			
Item-B demand	0	0	0	0	0			
Item-B Bucketed Allocation	0	0	0	0	0			
Net Item-B Available	10	10	10	10	10			
Backward Consumption	0	0	0	0	0			
Net + B/W	10	10	10	10	10			
Forward Consumption	0	0	0	0	0			
Present Item-B availability	10	10	10	10	10			
Cumulative Item-B availability	10	20	30	40	50	70	90	110

FIG. 5

600

Items	Day1	Day2	Day3	Day4	Day5	Day6	Day7	Day8
Family Supply	20	20	20	20	20	20	20	20
Family Bucketed allocation						0	0	0
Net Family Available						20	20	20
Backward Consumption						0	0	0
Net + B/W						20	20	20
Forward Consumption						0	0	0
Present family availability						20	20	20
Item Supply-A	10	10	10	10	10			
Item-A demand	0	0	30	0	0			
Item-A Bucketed Allocation	0	0	30	0	0			
Net Item-A Available	10	10	-20	10	10			
Backward Consumption	-10	-10	+20	0	0			
Net + B/W	0	0	0	10	10			
Forward Consumption	0	0	0	0	0			
Present Item-A availability	0	0	0	10	10			
Cumulative Item-A availability	0	0	0	10	20	40	60	80
Item Supply -B	10	10	10	10	10			
Item-B demand	0	0	0	0	0			
Item-B Bucketed Allocation	0	0	0	0	0			
Net Item-B Available	10	10	10	10	10			
Backward Consumption	0	0	0	0	0			
Net + B/W	10	10	10	10	10			
Forward Consumption	0	0	0	0	0			
Present Item-B availability	10	10	10	10	10			
Cumulative Item-B availability	10	20	30	40	50	70	90	110

FIG. 6A



650

Items	Day1	Day2	Day3	Day4	Day5	Day6	Day7	Day8
Family	Family Supply	20	20	20	20	20	20	20
	Family Bucketed allocation					0	0	0
	Net Family Available					20	20	20
	Backward Consumption					0	0	0
	Net + B/W					20	20	20
	Forward Consumption					0	0	0
Memb er-A	Present family availability					20	20	20
	Item Supply -A	10	10	10	10			
	Item-A demand	0	0	30	0			
	Item-A Bucketed Allocation	0	0	30	0			
	Net Item-A Available	10	10	-20	10			
	Backward Consumption	-10	-10	+20	0			
Memb er-B	Net + B/W	0	0	0	10			
	Forward Consumption	0	0	0	0			
	Present Item-A availability	0	0	0	10			
	Cumulative Item-A availability	0	0	0	10	40	60	80
	Item Supply -B	10	10	10	10			
	Item-B demand	0	20	0	0			
	Item-B Bucketed Allocation	0	20	0	0			
	Net Item-B Available	10	-10	10	10			
	Backward Consumption	-10	+10	0	0			
	Net + B/W	0	0	10	10			
	Forward Consumption	0	0	0	0			
	Present Item-B availability	0	0	10	10			
	Cumulative Item-B availability	0	0	10	20	50	70	90

FIG. 6B

700

Items	Day1	Day2	Day3	Day4	Day5	Day6	Day7	Day8
Family	Family Supply	20	20	20	20	20	20	20
	Family Bucketed allocation					0	40	0
	Net Family Available					20	-20	20
	Backward Consumption					-20	+20	0
	Net + B/W					0	0	20
	Forward Consumption					0	0	0
Memb er-A	Present family availability					0	0	20
	Item Supply -A	10	10	10	10			
	Item-A demand	0	0	30	0		50	
	Item-A Bucketed Allocation	0	0	30	0			
	Net Item-A Available	10	10	-20	10			
	Backward Consumption	-10	-10	+20	0			
Memb er-B	Net + B/W	0	0	0	10			
	Forward Consumption	0	0	0	0			
	Present Item-A availability	0	0	0	10			
	Cumulative Item-A availability	0	0	0	10	10	10	30
	Item Supply -B	10	10	10	10			
	Item-B demand	0	20	0	0			
	Item-B Bucketed Allocation	0	20	0	0			
	Net Item-B Available	10	-10	10	10			
	Backward Consumption	-10	+10	0	0			
	Net + B/W	0	0	10	10			
	Forward Consumption	0	0	0	0			
	Present Item-B availability	0	0	10	10			
	Cumulative Item-B availability	0	0	10	20	30	30	50

FIG. 7

800

Items	Day1	Day2	Day3	Day4	Day5	Day6	Day7	Day8
Family Supply	20	20	20	20	20	20	20	20
Family Bucketed allocation								35(15)
Net Family Available						20	-20	-15
Backward Consumption						-20	+20	0
Net + B/W						0	0	-15
Forward Consumption						0	0	+15
Present family availability						0	0	0
Item Supply -A	10	10	10	10	10			
Item-A demand	0	0	30	0	0		50	
Item-A Bucketed Allocation	0	0	30	0	10			
Net Item-A Available	10	10	-20	10	0			
Backward Consumption	-10	-10	+20	0	0			
Net + B/W	0	0	0	10	0			
Forward Consumption	0	0	0	0	0			
Present Item-A availability	0	0	0	10	0			
Cumulative Item-A availability	0	0	0	10	10	10	10	10
Item Supply -B	10	10	10	10	10			
Item-B demand	0	20	0	0	0			65
Item-B Bucketed Allocation	0	20	0	0	30			
Net Item-B Available	10	-10	10	10	-20			
Backward Consumption	-10	+10	-10	-10	+20			
Net + B/W	0	0	0	0	0			
Forward Consumption	0	0	0	0	0			
Present Item-B availability	0	0	0	0	0			
Cumulative Item-B availability	0	0	0	0	0	0	0	0

FIG. 8

Items	Day1	Day2	Day3	Day4	Day5	Day6	Day7	Day8
Family Supply	20	20	20	20	20	20	20	20
Family Bucketed allocation						(10)	40	35(15)
Net Family Available						10	-20	-15
Backward Consumption						-10	+10	0
Net + B/W						0	-10	-15
Forward Consumption						0	+10	15
Present family availability						0	0	0
Item Supply -A	10	10	10	10	10			
Item-A demand	20	0	30	0	0		50	
Item-A Bucketed Allocation	10	0	30	0	10			
Net Item-A Available	0	10	-20	10	0			
Backward Consumption	0	-10	10	0	0			
Net + B/W	0	0	-10	10	0			
Forward Consumption	0	0	10	-10	0			
Present Item-A availability	0	0	0	0	0			
Cumulative Item-A availability	0	0	0	0	0	0	0	0
Item Supply -B	10	10	10	10	10			
Item-B demand	0	20	0	0	0			65
Item-B Bucketed Allocation	0	20	0	0	30			
Net Item-B Available	10	-10	10	10	-20			
Backward Consumption	-10	+10	-10	-10	+20			
Net + B/W	0	0	0	0	0			
Forward Consumption	0	0	0	0	0			
Present Item-B availability	0	0	0	0	0			
Cumulative Item-B availability	0	0	0	0	0	0	0	0

FIG. 9

1000

1051	1052	1053	1054	1055	1056	1057	1058	1059	1060	1065
Items	Day1	Day2	Day3	Day4	Day5	Day6	Day7	Day8		
Family	Family Supply	20	20	20	20	20	20	20		1065
	Family Bucketed allocation					0	40	35(15)		1070
	Net Family Available					20	-20	-15		1071
	Backward Consumption					-20	20	0		1072
	Net + B/W					0	0	-15		1073
	Forward Consumption					0	0	15		1074
	Present family availability					0	0	0		1075
Member-A	Item Supply -A	10	10	10	10					1078
	Item-A demand	20	0	0	0		50			1080
	Item-A Bucketed Allocation	20	0	0	0	10				1081
	Net Item-A Available	-10	10	10	10	0				1082
	Backward Consumption	0	0	0	0					1083
	Net + B/W	-10	10	10	10	0				1084
	Forward Consumption	10	-10	0	0					1085
	Present Item-A availability	0	0	10	10					1086
	Cumulative Item-A availability	0	0	10	20	20	20	20		1088
										1089
Member-B	Item Supply -B	10	10	10	10	10				1090
	Item-B demand	0	20	0	0	0		65		1091
	Item-B Bucketed Allocation	0	20	0	0	30				1092
	Net Item-B Available	10	-10	10	10	-20				1093
	Backward Consumption	-10	+10	-10	-10	+20				1094
	Net + B/W	0	0	0	0	0				1095
	Forward Consumption	0	0	0	0					1096
	Present Item-B availability	0	0	0	0					1098
	Cumulative Item-B availability	0	0	0	0	0	0	0		1099

FIG. 10

1100

Items	Day1	Day2	Day3	Day4	Day5	Day6	Day7	Day8	
Family Supply	20	20	20	20	20	20	20	20	1165
Family Bucketed allocation						0	0	35	1170
Net Family Available						20	20	-15	1171
Backward Consumption						0	-15	+15	1172
Net + B/W						20	5	0	1173
Forward Consumption						0	0	0	1174
Present family availability						20	5	0	1175
Item Supply -A	10	10	10	10	10				1178
Item-A demand	20	0	0	0	0				1180
Item-A Bucketed Allocation	20	0	0	0	0				1181
Net Item-A Available	-10	10	10	10	10				1182
Backward Consumption	0	0	0	0	0				1183
Net + B/W	-10	10	10	10	10				1184
Forward Consumption	10	-10	0	0	0				1185
Present Item-A availability	0	0	10	10	10				1186
Cumulative Item-A availability	0	0	10	20	30	50	55	55	1188
Item Supply -B	10	10	10	10	10				1189
Item-B demand	0	20	0	0	0			65	1190
Item-B Bucketed Allocation	0	20	0	0	30				1191
Net Item-B Available	10	-10	10	10	-20				1192
Backward Consumption	-10	+10	-10	-10	+20				1193
Net + B/W	0	0	0	0	0				1194
Forward Consumption	0	0	0	0	0				1195
Present Item-B availability	0	0	0	0	0				1196
Cumulative Item-B availability	0	0	0	0	0	20	25	25	1198
									1199

FIG. 11